Aspire 4810 Series
Disassembly Instruction

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Machine Disassembly and Replacement

This chapter contains step-by-step procedures on how to disassemble the notebook computer for maintenance and troubleshooting.

Disassembly Requirements

To disassemble the computer, you need the following tools:

- Wrist grounding strap and conductive mat for preventing electrostatic discharge
- Flat screwdriver
- Philips screwdriver
- Hex screwdriver
- Plastic flat screwdriver
- Plastic tweezers

NOTE: The screws for the different components vary in size. During the disassembly process, group the screws with the corresponding components to avoid mismatch when putting back the components.

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General Information

Pre-disassembly Instructions

Before proceeding with the disassembly procedure, make sure that you do the following:

1. Turn off the power to the system and all peripherals.
2. Unplug the AC adapter and all power and signal cables from the system.

3. Place the system on a flat, stable surface.
4. Remove any dummy card that might still be inside the card slot.

Disassembly Process

The disassembly process is divided into the following stages:

- External module disassembly
- Main unit disassembly
- LCD module disassembly

The flowcharts provided in the succeeding disassembly sections illustrate the entire disassembly sequence. Observe the order of the sequence to avoid damage to any of the hardware components. For example, if you want to remove the main board, you must first remove the keyboard, then disassemble the inside assembly frame in that order.

Main Screw List

Item	Screw	Color	Part No.
A	M2 x L4	Black	86.00E13.524
B	M2 x L3	Silver	86.9A522.3R0
C	M2.5 X L3.5	Silver	86.9A563.3R5
D	M3 x L3	Black	86.00E90.743
E	M2.5 x L6	Black	86.00E12.536
F	M2.5 x L11	Black	88.1A353.110
G	M2 x L2.5	Silver	86.9A562.2R5
H	M2.5 x L5	Black	86.00F87.735
I	M2 x L6	Black	86.00K84.524
J	M2 x L3	Black	86.00K60.830

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External Module Disassembly Process

Item	Screw	Color
B	M2 x L3	Silver
D	M3 x L3	Black
F	M2.5 x L11	Black

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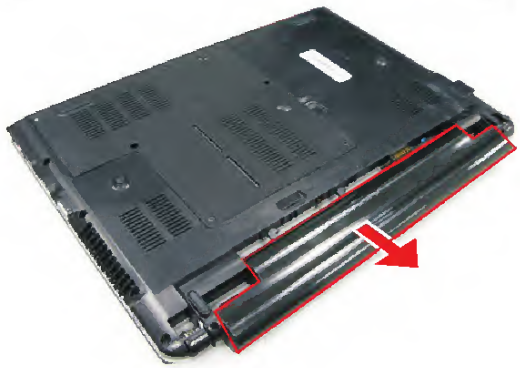
Removing the Battery Pack

1. Turn base unit over.
2. Slide the battery lock/unlock latch to the unlock position.

3. Slide and hold the battery release latch to the release position.

4. Then slide out the battery from the battery bay.



Note: Battery has been highlighted with the red rectangle as above image shows. Please detach the battery and follow the local regulations for disposal.

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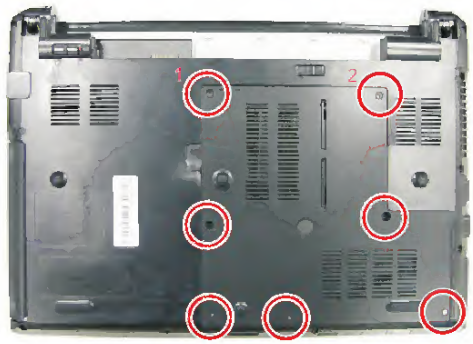
Removing the Lower Cover

1. See "Removing the Battery Pack" on page 5.
2. Remove the two screws (F) and five captive screws securing the lower cover.



Step	Size (Quantity)	Color	Torque
1~2	M2.5 x L11 (2)	Black	3.0 kgf-cm

3. Use a plastic screw driver to carefully pry open the lower cover.

4. Remove the lower cover from the lower case.

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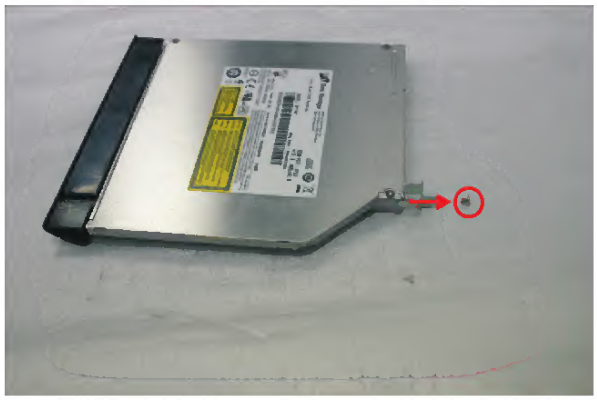
Removing the Optical Drive Module

1. See "Removing the Battery Pack" on page 5.
2. See "Removing the Lower Cover" on page 6.
3. Use a screw driver and carefully push out and slide out the optical drive module out of the bay.

4. Remove the one screw (B) securing the locker bracket and remove the locker bracket from the optical disk drive module.



Step	Size (Quantity)	Color	Torque
1	M2 x L3 (1)	Silver	1.6 kgf-cm

Removing the DIMM

1. See "Removing the Battery Pack" on page 5.
2. See "Removing the Lower Cover" on page 6.

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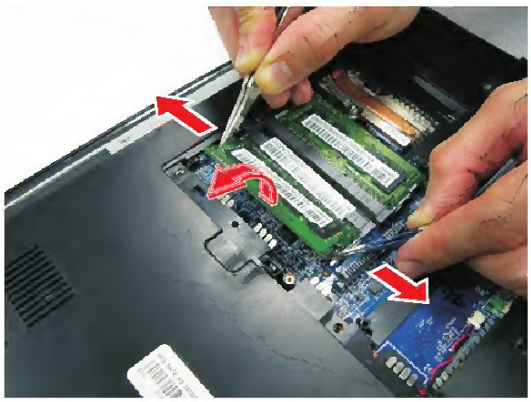
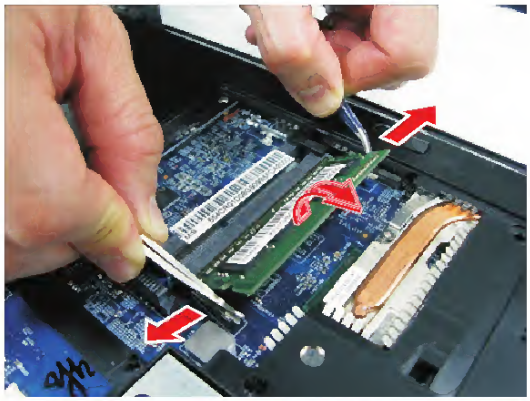
3. Push out the latches on both sides of the DIMM socket to release the DIMM and remove it from the socket.



4. Do the same to the other socket if there is any DIMM present.



Removing the Hard Disk Drive Module

1. See "Removing the Battery Pack" on page 5.
2. See "Removing the Lower Cover" on page 6.
3. Using the plastic tab, lift up the the hard disk drive module and remove it from the bay.

NOTE: To prevent damage to device, avoid pressing down on it or placing heavy objects on top of it.

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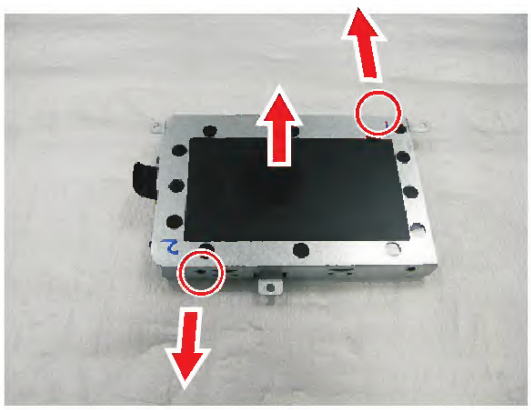
4. Remove the two screws (D) securing the hard disk to the bracket and remove the hard disk from the bracket.



Step	Size (Quantity)	Color	Torque
1~2	M3 x L3 (2)	Black	3.0 kgf-cm

Removing the SSD Module

1. See "Removing the Battery Pack" on page 5.
2. See "Removing the Lower Cover" on page 6.
3. Using the plastic tab, slide the SSD module away from the connector and lift to remove it from the system.

Removing the RTC Battery

1. See "Removing the Battery Pack" on page 5.
2. See "Removing the Lower Cover" on page 6.

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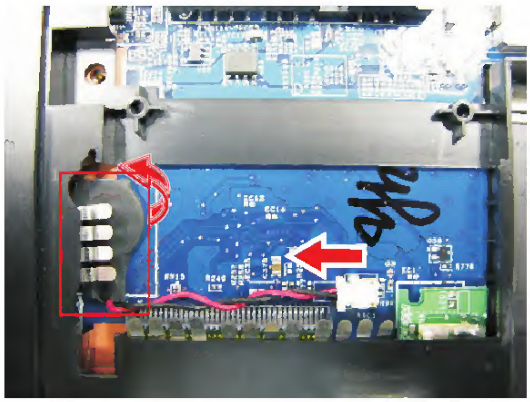
3. Disconnect the RTC battery cable from the system board and lift to remove it.



NOTE: Be careful when removing the RTC battery. It is glued to the system board.

Note: Battery has been highlighted with the red rectangle as above image shows. Please detach the battery and follow the local regulations for disposal.

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Main Unit Disassembly Process

Item	Screw	Color
A	M2 x L4	Black
E	M2 5 x L6	Black
H	M2 5 x L5	Black
I	M2 x L6	Black

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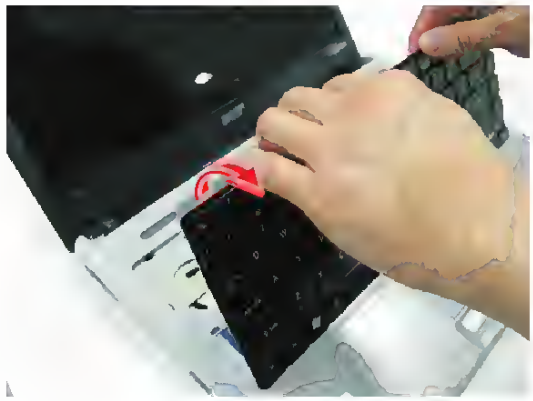
Removing the Keyboard

1. See “Removing the Battery Pack” on page 5.
2. Release the keyboard from the latches securing it.

3. Carefully pry loose the keyboard.



4. Place the keyboard below the LCD screen to gain access to the keyboard cable.

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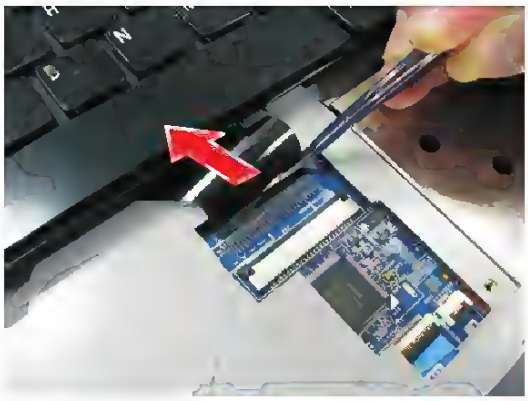
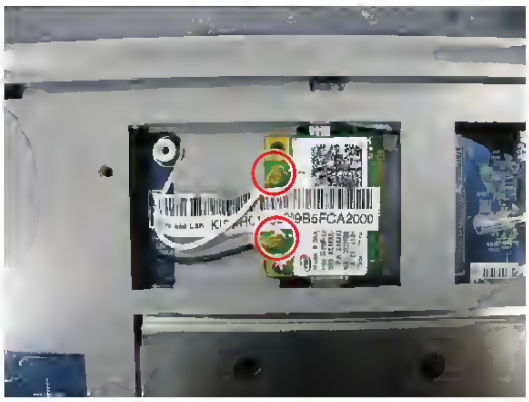
5. Disconnect the keyboard cable from the main board to remove the keyboard.



Removing the WLAN Board Module

1. See "Removing the Battery Pack" on page 5.
2. See "Removing the Keyboard" on page 12.
3. Disconnect the antenna cables from the WLAN board.



NOTE: There are 2 antenna cables connected to the WLAN board. The Black antenna cable is connected to connector 1and the White antenna cable is connected to connector 2.

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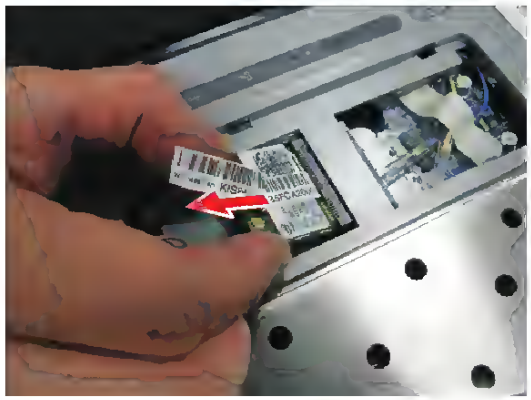
4. Remove the one screw (A) on the WLAN board to release the WLAN board.

Step	Size (Quantity)	Color	Torque
1	M2 x L4 (1)	Black	1.6 kgf-cm

5. Detach the WLAN board from the WLAN socket.



NOTE: When attaching the antenna back to the WLAN board, make sure the cable are arranged properly.

Separating the Upper Case from the Lower Case

1. See "Removing the Battery Pack" on page 5.
2. See "Removing the Lower Cover" on page 6.
3. See "Removing the Lower Cover" on page 6.
4. See "Removing the Optical Drive Module" on page 7.
5. See "Removing the DIMM" on page 7.
6. See "Removing the Hard Disk Drive Module" on page 8.
7. See "Removing the SSD Module" on page 9.
8. See "Removing the RTC Battery" on page 9.
9. See "Removing the Keyboard" on page 12.
10. See "Removing the WLAN Board Module" on page 13.

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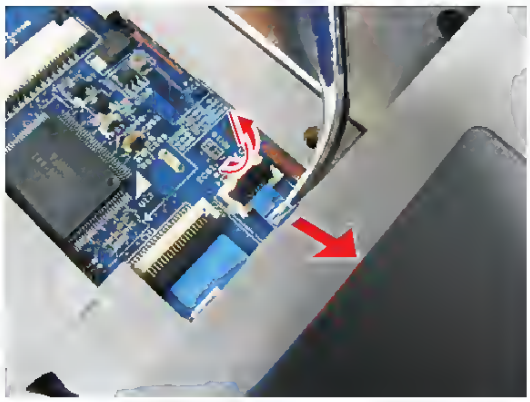
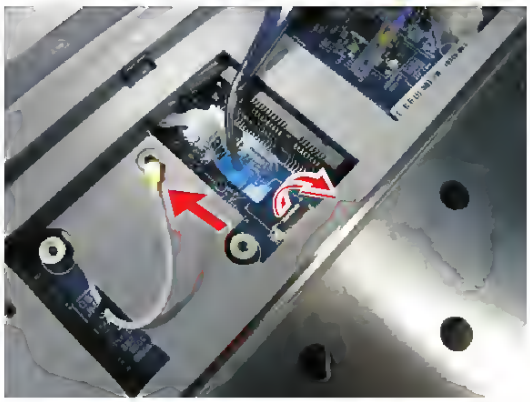
11. Remove the twelve screws (I, E, H) from the bottom panel.

Step	Size (Quantity)	Color	Torque
1~2	M2.5 x L6 (2)	Black	3.0 kgf-cm
3~4	M2 x L4 (2)	Black	3.0 kgf-cm
5~12	M2.5 x L5 (8)	Black	3.0 kgf-cm

12. Disconnect the touchpad cable from the TPAD1 connector on the main board.



13. Disconnect the function key board cable from the MMB1 connector on the system board.



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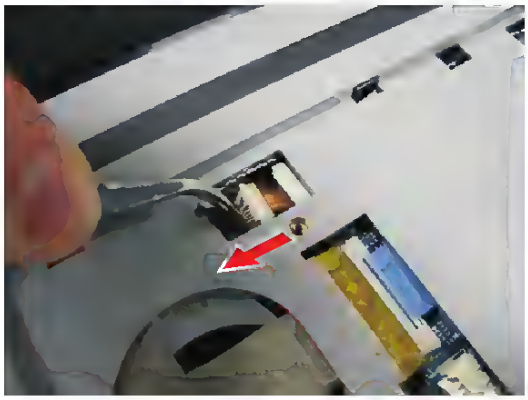
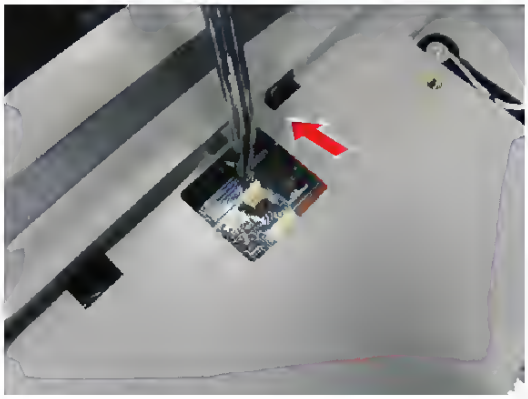
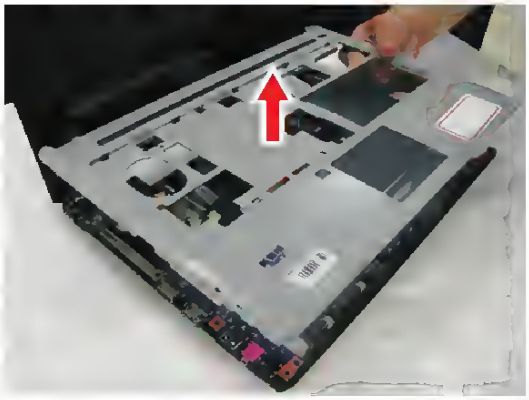
14. Disconnect the power button cable from the BTB2 connector on the system board.



15. Disconnect the speaker cable from the SPK1 connector on the system board.



16. Gently separate the upper case from the lower case.



Removing the Power Button Board

1. See "Removing the Battery Pack" on page 5.
2. See "Removing the Lower Cover" on page 6.
3. See "Removing the Lower Cover" on page 6.

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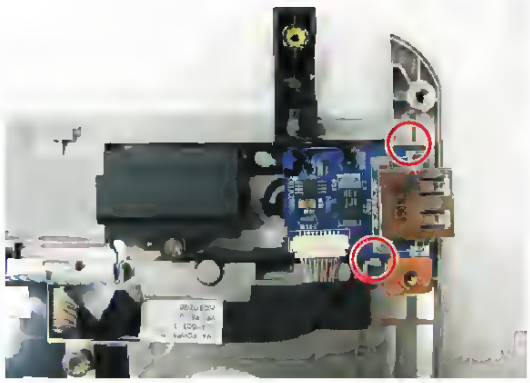
4. See “Removing the Optical Drive Module” on page 7.
5. See “Removing the DIMM” on page 7.
6. See “Removing the Hard Disk Drive Module” on page 8.
7. See “Removing the SSD Module” on page 9.
8. See “Removing the RTC Battery” on page 9.
9. See “Removing the Keyboard” on page 12.
10. See “Removing the WLAN Board Module” on page 13.
11. See “Separating the Upper Case from the Lower Case” on page 14.
12. Release the power button board from that latches and remove from the upper case.



Removing the Touchpad Module

1. See “Removing the Battery Pack” on page 5.
2. See “Removing the Lower Cover” on page 6.
3. See “Removing the Lower Cover” on page 6.
4. See “Removing the Optical Drive Module” on page 7.
5. See “Removing the DIMM” on page 7.
6. See “Removing the Hard Disk Drive Module” on page 8.
7. See “Removing the SSD Module” on page 9.
8. See “Removing the RTC Battery” on page 9.
9. See “Removing the Keyboard” on page 12.
10. See “Removing the WLAN Board Module” on page 13.
11. See “Separating the Upper Case from the Lower Case” on page 14.

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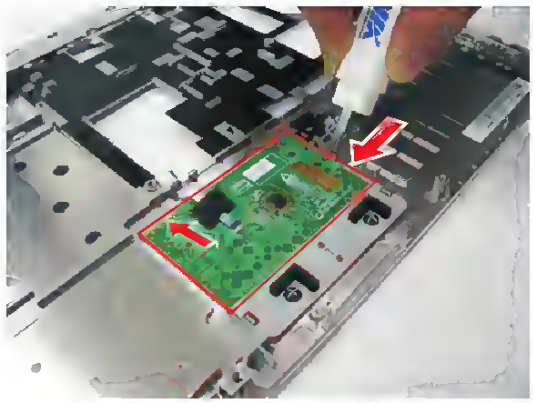
12. Disconnect the touchpad cable from the touchpad board; then carefully pry loose and remove the touch pad board



WARNING: The touchpad board is glued to the upper case, only remove the touchpad board if it is defective.

Note: Circuit board > 10cm^2 has been highlighted with the red rectangle as shown in the figure above. Please detach the circuit board and follow the local regulations for disposal.

Removing the Speaker Module

1. See "Removing the Battery Pack" on page 5.
2. See "Removing the Lower Cover" on page 6.
3. See "Removing the Lower Cover" on page 6.
4. See "Removing the Optical Drive Module" on page 7.
5. See "Removing the DIMM" on page 7.
6. See "Removing the Hard Disk Drive Module" on page 8.
7. See "Removing the SSD Module" on page 9.
8. See "Removing the RTC Battery" on page 9.
9. See "Removing the Keyboard" on page 12.
10. See "Removing the WLAN Board Module" on page 13.
11. See "Separating the Upper Case from the Lower Case" on page 14.

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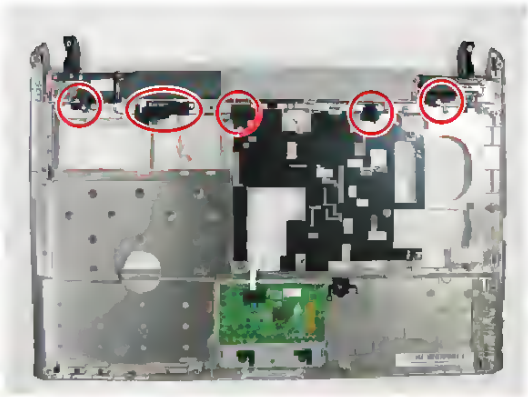
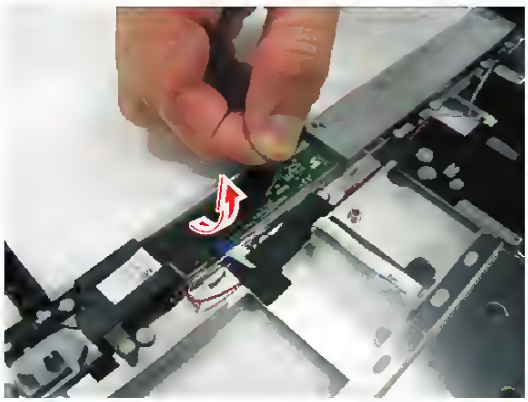
12. Remove the two screws (A) securing the left and right speaker modules, peel off the stickers securing the speaker cables, and remove them from the upper case.



Step	Size (Quantity)	Color	Torque
1~2	M2 x L4 (2)	Black	1 6 kgf-cm

Removing the LED Board

1. See “Removing the Battery Pack” on page 5.
2. See “Removing the Lower Cover” on page 6.
3. See “Removing the Lower Cover” on page 6.
4. See “Removing the Optical Drive Module” on page 7.
5. See “Removing the DIMM” on page 7.
6. See “Removing the Hard Disk Drive Module” on page 8.
7. See “Removing the SSD Module” on page 9.
8. See “Removing the RTC Battery” on page 9.
9. See “Removing the Keyboard” on page 12.
10. See “Removing the WLAN Board Module” on page 13.
11. See “Separating the Upper Case from the Lower Case” on page 14.
12. Peel off the covering of the LED board.



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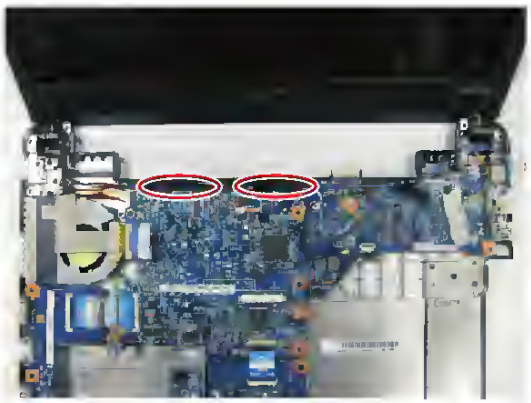
13. Carefully pry loose and remove the LED board from the upper case.

WARNING: The LED board is glued to the upper case, only remove the LED board if it is defective.

Removing the LCD Module

1. See "Removing the Battery Pack" on page 5.
2. See "Removing the Lower Cover" on page 6.
3. See "Removing the Lower Cover" on page 6.
4. See "Removing the Optical Drive Module" on page 7.
5. See "Removing the DIMM" on page 7.
6. See "Removing the Hard Disk Drive Module" on page 8.
7. See "Removing the SSD Module" on page 9.
8. See "Removing the RTC Battery" on page 9.
9. See "Removing the Keyboard" on page 12.
10. See "Removing the WLAN Board Module" on page 13.
11. See "Separating the Upper Case from the Lower Case" on page 14.
12. Release the wireless antenna cables from the latches.



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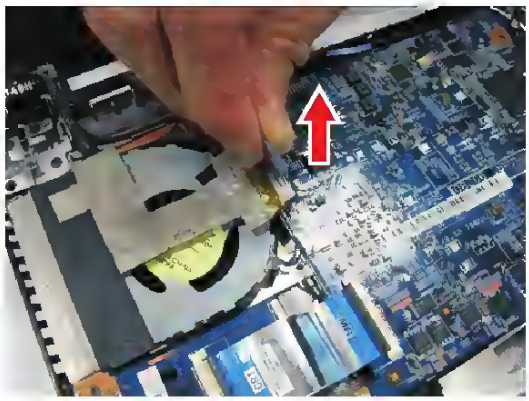
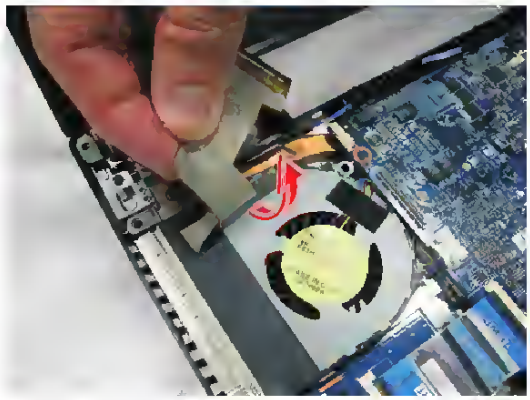
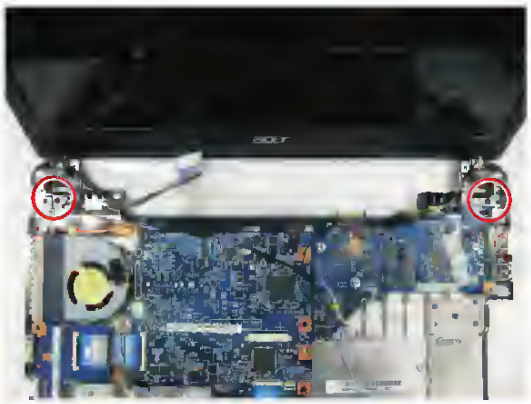
13. Disconnect the LCD cable.



14. Pell off the LCD cable from the fan.



15. Remove the two screws (E) from the left and right hinge of the LCD module.



Step	Size (Quantity)	Color	Torque
1~2	M2.5 x L6 (2)	Black	3.0 kgf-cm

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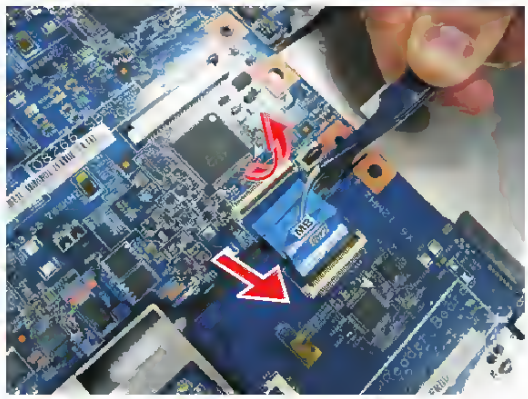
16. Carefully remove the LCD module from the base unit.

NOTE: When connecting the cables back to the unit, please note that the cables should be routed well.

Removing the System Board

1. See “Removing the Battery Pack” on page 5.
2. See “Removing the Lower Cover” on page 6.
3. See “Removing the Lower Cover” on page 6.
4. See “Removing the Optical Drive Module” on page 7.
5. See “Removing the DIMM” on page 7.
6. See “Removing the Hard Disk Drive Module” on page 8.
7. See “Removing the SSD Module” on page 9.
8. See “Removing the RTC Battery” on page 9.
9. See “Removing the Keyboard” on page 12.
10. See “Removing the WLAN Board Module” on page 13.
11. See “Separating the Upper Case from the Lower Case” on page 14.
12. See “Removing the LCD Module” on page 20.
13. Disconnect the card reader board cable from the system board.



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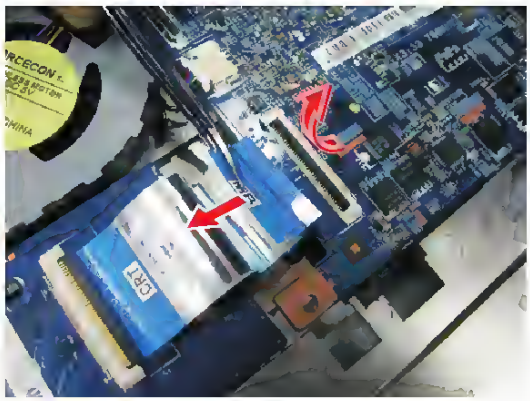
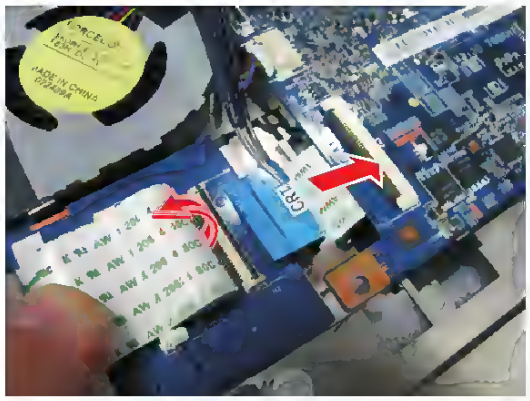
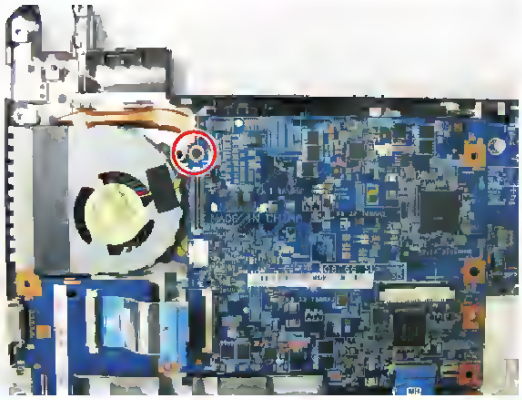
14. Disconnect the top daughter board cable from the system board.



15. Disconnect the bottom system board cable from the daughter board.



16. Remove the one screw (A) securing the system board and the mini board..



Step	Size (Quantity)	Color	Torque
1	M2 x L4 (1)	Black	1 6 kgf-cm

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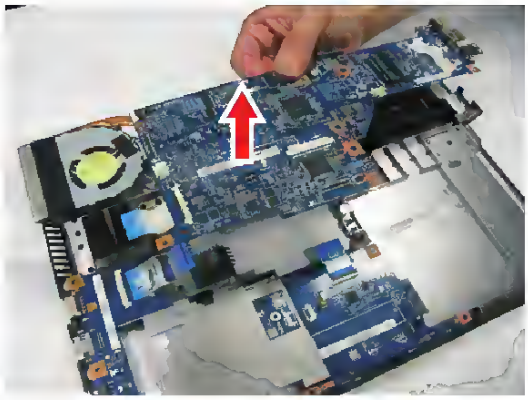
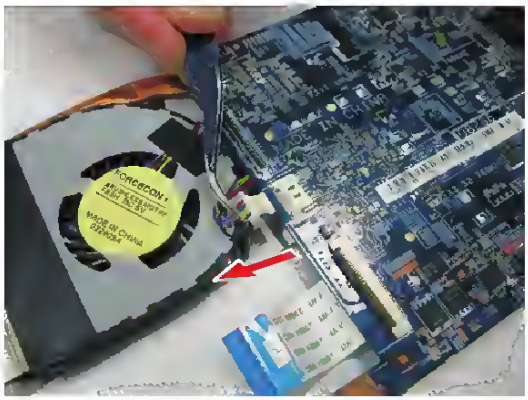
17. Carefully remove the main board.



Removing the Thermal Module

1. See "Removing the Battery Pack" on page 5.
2. See "Removing the Lower Cover" on page 6.
3. See "Removing the Lower Cover" on page 6.
4. See "Removing the Optical Drive Module" on page 7.
5. See "Removing the DIMM" on page 7.
6. See "Removing the Hard Disk Drive Module" on page 8.
7. See "Removing the SSD Module" on page 9.
8. See "Removing the RTC Battery" on page 9.
9. See "Removing the Keyboard" on page 12.
10. See "Removing the WLAN Board Module" on page 13.
11. See "Separating the Upper Case from the Lower Case" on page 14.
12. See "Removing the System Board" on page 22.
13. Disconnect the thermal module cable from the system board.



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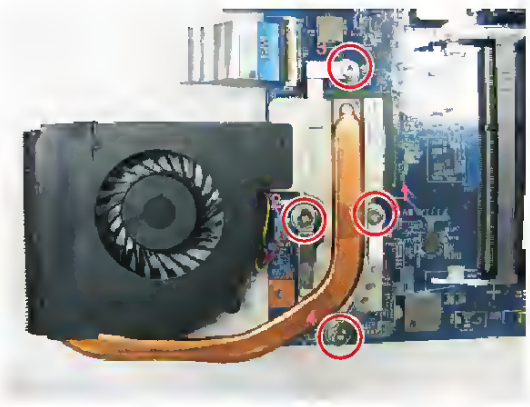
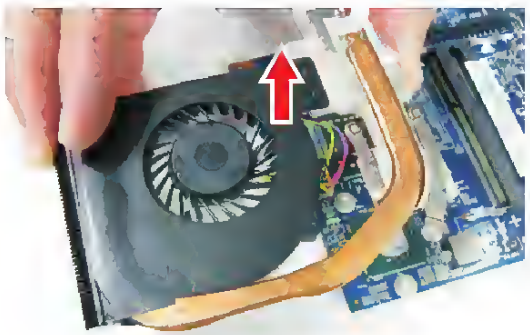
14. Turn over the system board and loosen the four captive screws securing the thermal module.



15. Carefully remove the heatsink module from the system.



Removing the Mini Board Module

1. See “Removing the Battery Pack” on page 5.
2. See “Removing the Lower Cover” on page 6.
3. See “Removing the Lower Cover” on page 6.
4. See “Removing the Optical Drive Module” on page 7.
5. See “Removing the DIMM” on page 7.
6. See “Removing the Hard Disk Drive Module” on page 8.
7. See “Removing the SSD Module” on page 9.
8. See “Removing the RTC Battery” on page 9.
9. See “Removing the Keyboard” on page 12.
10. See “Removing the WLAN Board Module” on page 13.
11. See “Separating the Upper Case from the Lower Case” on page 14.
12. See “Removing the System Board” on page 22.

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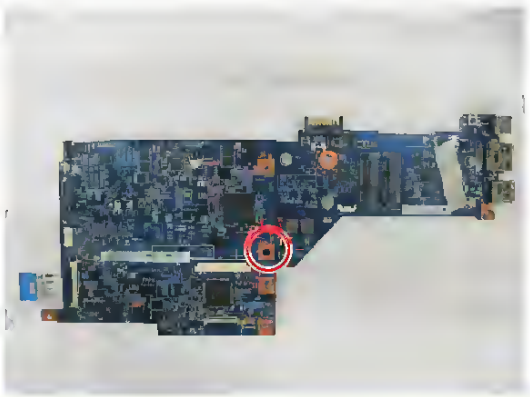
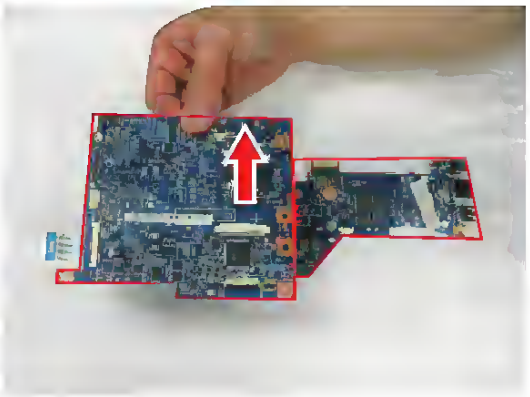
13. Remove the one screw (A) securing the mini board to the system board.



Step	Size (Quantity)	Color	Torque
1	M2 x L4 (1)	Black	1.6 kgf-cm

14. Detach the system board from the mini board.



Note: Circuit boards > 10cm^2 has been highlighted with the red rectangle as shown in the figure above. Please detach the circuit boards and follow the local regulations for disposal.

Removing the Daughter Board Module

1. See "Removing the Battery Pack" on page 5.
2. See "Removing the Lower Cover" on page 6.
3. See "Removing the Lower Cover" on page 6.
4. See "Removing the Optical Drive Module" on page 7.
5. See "Removing the DIMM" on page 7.
6. See "Removing the Hard Disk Drive Module" on page 8.
7. See "Removing the SSD Module" on page 9.
8. See "Removing the RTC Battery" on page 9.
9. See "Removing the Keyboard" on page 12.
10. See "Removing the WLAN Board Module" on page 13.
11. See "Separating the Upper Case from the Lower Case" on page 14.

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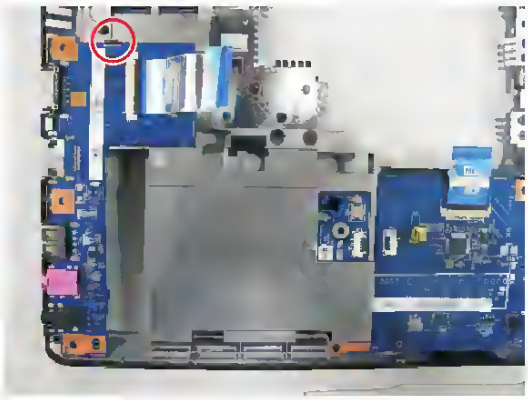
12. See “Removing the System Board” on page 22.
13. Release the daughter board from the latch.



14. Carefully lift the daughter board and remove it from the lower case.

Note: Circuit board > 10cm^2 has been highlighted with the red rectangle as shown in the figure above. Please detach the circuit board and follow the local regulations for disposal.

Removing the Card Reader Board

1. See “Removing the Battery Pack” on page 5.
2. See “Removing the Lower Cover” on page 6.
3. See “Removing the Lower Cover” on page 6.
4. See “Removing the Optical Drive Module” on page 7.
5. See “Removing the DIMM” on page 7.
6. See “Removing the Hard Disk Drive Module” on page 8.
7. See “Removing the SSD Module” on page 9.
8. See “Removing the RTC Battery” on page 9.
9. See “Removing the Keyboard” on page 12.
10. See “Removing the WLAN Board Module” on page 13.
11. See “Separating the Upper Case from the Lower Case” on page 14.
12. See “Removing the System Board” on page 22.

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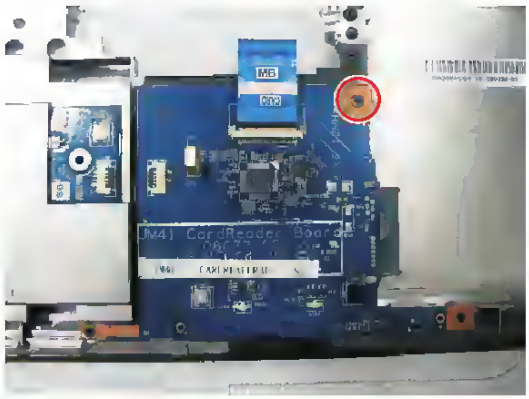
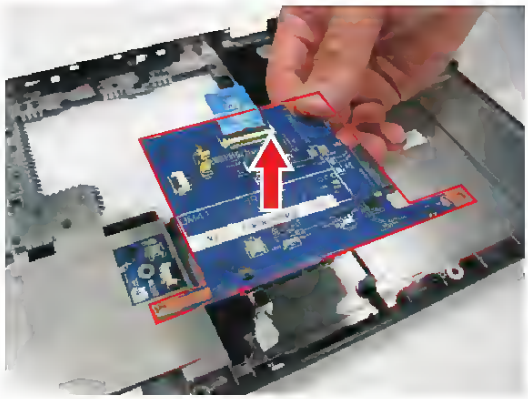
13. Remove the one screw (A) securing the card reader board to the lower case.



Step	Size (Quantity)	Color	Torque
1	M2 x L4 (1)	Black	1.6 kgf-cm

14. Remove the card reader board from the lower case.



Note: Circuit board > 10cm^2 has been highlighted with the red rectangle as shown in the figure above. Please detach the circuit board and follow the local regulations for disposal.

Removing the Bluetooth Module

1. See “Removing the Battery Pack” on page 5.
2. See “Removing the Lower Cover” on page 6.
3. See “Removing the Lower Cover” on page 6.
4. See “Removing the Optical Drive Module” on page 7.
5. See “Removing the DIMM” on page 7.
6. See “Removing the Hard Disk Drive Module” on page 8.
7. See “Removing the SSD Module” on page 9.
8. See “Removing the RTC Battery” on page 9.
9. See “Removing the Keyboard” on page 12.
10. See “Removing the WLAN Board Module” on page 13.
11. See “Separating the Upper Case from the Lower Case” on page 14.

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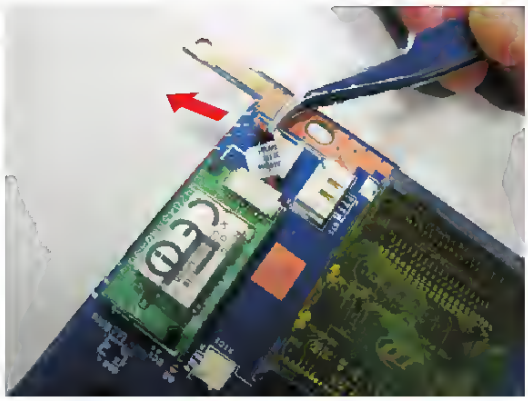
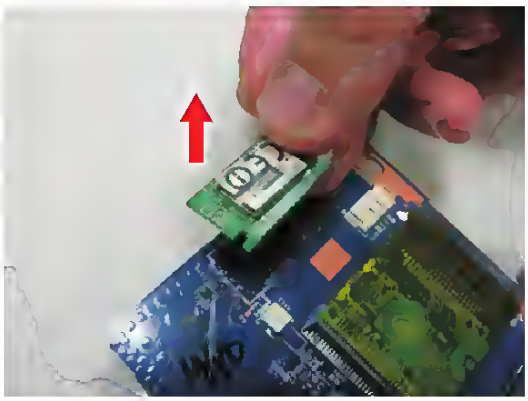
12. See “Removing the Card Reader Board” on page 27.
13. Disconnect the Bluetooth module cable from the bottom of the card reader board.



14. Carefully pry loose and remove the Bluetooth module from the card reader board.



WARNING: The Bluetooth module is glued to the card reader board, only remove the Bluetooth module if it is defective.

Removing the Touchpad Lock Board

1. See “Removing the Battery Pack” on page 5.
2. See “Removing the Lower Cover” on page 6.
3. See “Removing the Lower Cover” on page 6.
4. See “Removing the Optical Drive Module” on page 7.
5. See “Removing the DIMM” on page 7.
6. See “Removing the Hard Disk Drive Module” on page 8.
7. See “Removing the SSD Module” on page 9.
8. See “Removing the RTC Battery” on page 9.
9. See “Removing the Keyboard” on page 12.
10. See “Removing the WLAN Board Module” on page 13.
11. See “Separating the Upper Case from the Lower Case” on page 14.

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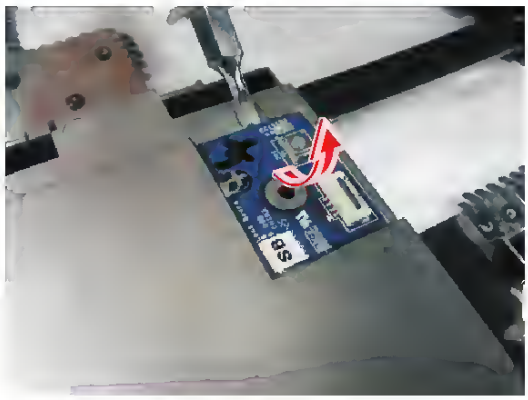
12. Carefully pry loose and remove the touchpad lock board from the lower case.



WARNING: The touchpad lock board is glued to the lower case, only remove the touchpad lock board if it is defective.

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LCD Module Disassembly Process

Item	Screw	Color
C	M2 5 X L3 5	Silver
G	M2 x L2.5	Silver
J	M2 x L3	Black

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Removing the LCD Bezel

1. See “Removing the Battery Pack” on page 5.
2. See “Removing the Lower Cover” on page 6.
3. See “Removing the Lower Cover” on page 6.
4. See “Removing the Optical Drive Module” on page 7.
5. See “Removing the DIMM” on page 7.
6. See “Removing the Hard Disk Drive Module” on page 8.
7. See “Removing the SSD Module” on page 9.
8. See “Removing the RTC Battery” on page 9.
9. See “Removing the Keyboard” on page 12.
10. See “Removing the WLAN Board Module” on page 13.
11. See “Separating the Upper Case from the Lower Case” on page 14.
12. See “Removing the LCD Module” on page 20.
13. Remove the four rubber screw covers from the LCD bezel.

14. Remove the four screws (C) on the LCD module as shown.

Step	Size (Quantity)	Color	Torque
1~4	M2.5 x L3.5 (4)	Silver	3.0 kgf-cm

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15. Carefully pry open the LCD bezel and and remove the bezel from the LCD panel.

Removing the LCD Panel

1. See “Removing the Battery Pack” on page 5.
2. See “Removing the Lower Cover” on page 6.
3. See “Removing the Lower Cover” on page 6.
4. See “Removing the Optical Drive Module” on page 7.
5. See “Removing the DIMM” on page 7.
6. See “Removing the Hard Disk Drive Module” on page 8.
7. See “Removing the SSD Module” on page 9.
8. See “Removing the RTC Battery” on page 9.
9. See “Removing the Keyboard” on page 12.
10. See “Removing the WLAN Board Module” on page 13.
11. See “Separating the Upper Case from the Lower Case” on page 14.
12. See “Removing the LCD Module” on page 20.
13. See “Removing the LCD Bezel” on page 32.
14. See “Removing the LCD Panel Hinges” on page 35.

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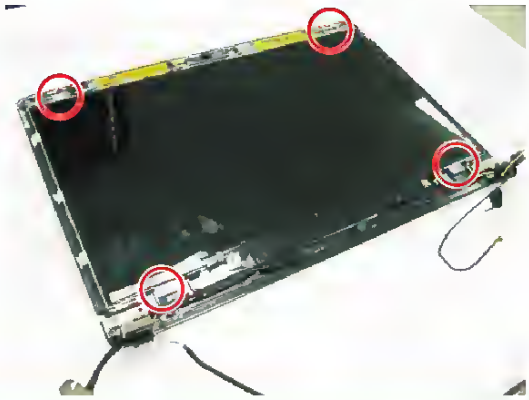
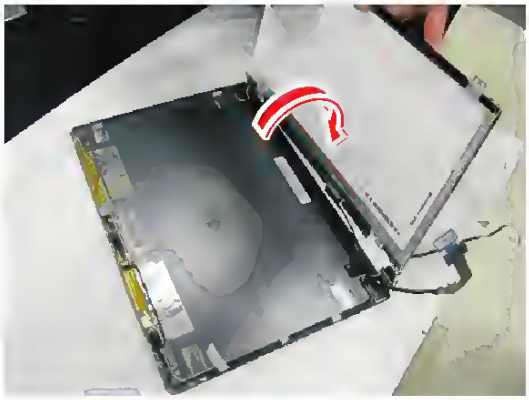
15. Remove the four screws (G) securing the LCD panel to the back cover.

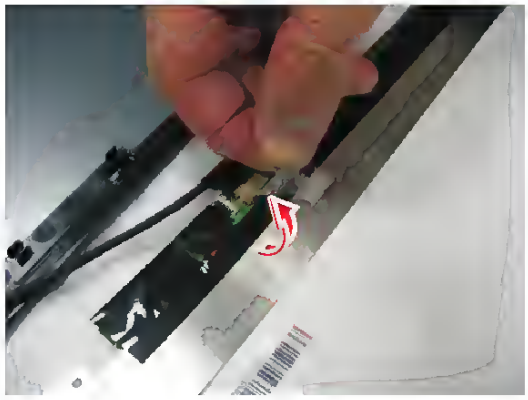


Step	Size (Quantity)	Color	Torque
1~4	M2 x L2.5 (4)	Silver	1.6 kgf-cm

16. Carefully lift up the LCD panel and turn it over to gain access to the LCD cable.



17. Detach the acetic tape on the LCD cable.



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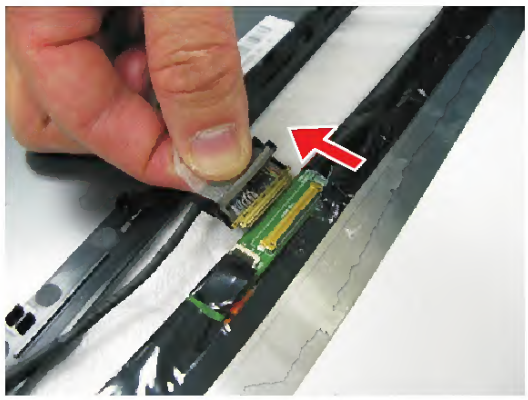
18. Detach the LCD cable from the LCD panel.



19. Remove the LCD panel from the back cover.

Removing the LCD Panel Hinges

1. See "Removing the Battery Pack" on page 5.
2. See "Removing the Lower Cover" on page 6.
3. See "Removing the Lower Cover" on page 6.
4. See "Removing the Optical Drive Module" on page 7.
5. See "Removing the DIMM" on page 7.
6. See "Removing the Hard Disk Drive Module" on page 8.
7. See "Removing the SSD Module" on page 9.
8. See "Removing the RTC Battery" on page 9.
9. See "Removing the Keyboard" on page 12.
10. See "Removing the WLAN Board Module" on page 13.
11. See "Separating the Upper Case from the Lower Case" on page 14.
12. See "Removing the LCD Module" on page 20.
13. See "Removing the LCD Bezel" on page 32.
14. Remove the hinge caps on both side of the hinges.

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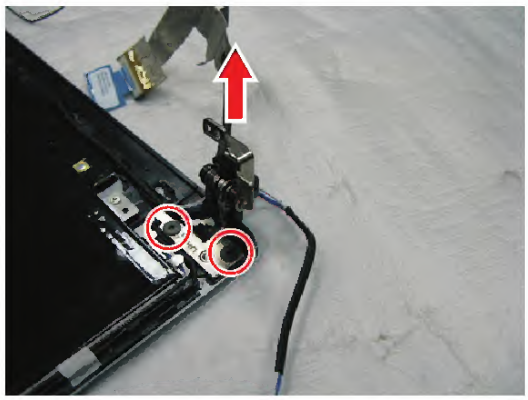
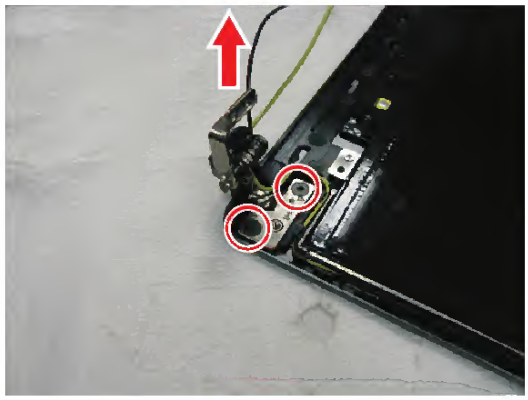
15. Remove the four screws (J) securing the left and right hinges, and remove the hinges





Step	Size (Quantity)	Color	Torque
1~4	M2.5 x L2.5 (4)	Black	1.6 kgf-cm

Removing the Webcam

1. See "Removing the Battery Pack" on page 5.
2. See "Removing the Lower Cover" on page 6.
3. See "Removing the Lower Cover" on page 6.
4. See "Removing the Optical Drive Module" on page 7.
5. See "Removing the DIMM" on page 7.
6. See "Removing the Hard Disk Drive Module" on page 8.
7. See "Removing the SSD Module" on page 9.
8. See "Removing the RTC Battery" on page 9.
9. See "Removing the Keyboard" on page 12.
10. See "Removing the WLAN Board Module" on page 13.
11. See "Separating the Upper Case from the Lower Case" on page 14.
12. See "Removing the LCD Module" on page 20.
13. See "Removing the LCD Bezel" on page 32.

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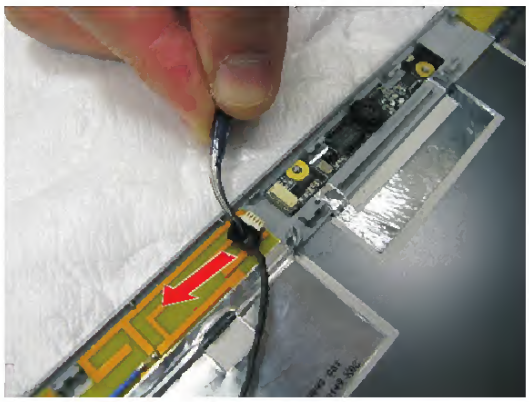
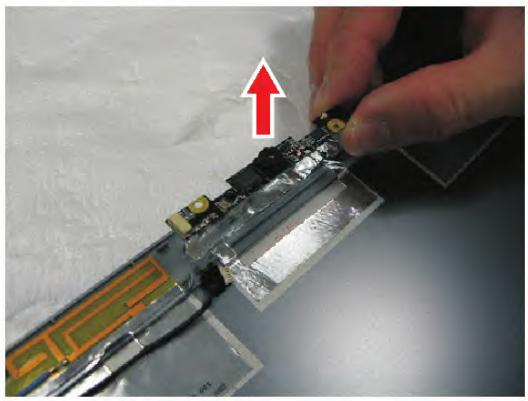
14. Disconnect the cable from the webcam.



15. Carefully pry loose the webcam.



CAUTION: Only remove the webcam if it is defective as it is glued to the back cover.

Removing the Microphone

1. See "Removing the Battery Pack" on page 5.
2. See "Removing the Lower Cover" on page 6.
3. See "Removing the Lower Cover" on page 6.
4. See "Removing the Optical Drive Module" on page 7.
5. See "Removing the DIMM" on page 7.
6. See "Removing the Hard Disk Drive Module" on page 8.
7. See "Removing the SSD Module" on page 9.
8. See "Removing the RTC Battery" on page 9.
9. See "Removing the Keyboard" on page 12.
10. See "Removing the WLAN Board Module" on page 13.
11. See "Separating the Upper Case from the Lower Case" on page 14.
12. See "Removing the LCD Module" on page 20.
13. See "Removing the LCD Bezel" on page 32.

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14. Disconnect the cable from the microphone, then remove the microphone.

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